Templates Part I
Workplan – Budget Year Four
Cross-Cutting Activities

Using the template below, provide a brief report for the questions in each benchmark outlined in Attachment X of the continuation guidance. The narratives should not exceed the page limitations specified for each response. Applicants are welcome to use bullet-point format in their answers, so long as the information is clearly conveyed in the response. Applicants should refer to Attachment X for full descriptions and histories of the benchmarks.

A. CROSS-CUTTING BENCHMARK #1: INCIDENT MANAGEMENT

In the space below, describe the roles and responsibilities of public health departments and the hospital community (including their supporting health care systems) related to incident management at the state and regional levels – including inter-state as well as intra-state regions, as appropriate.

1. Does your state (city) currently have an incident management system? If yes, please indicate a web-site address or other reference to a descriptive document and answer the following questions about the system.
    a. What government agencies participate in the system?
    b. What other entities, public and private, participate in the system?
    c. Which agency has responsibility for overall planning, directing, and coordinating jurisdiction-wide response operations?
    d. For what classes of incidents does the public health department have lead responsibility for planning, directing, and coordinating jurisdiction-wide response operations?
2. Has your state government defined intra-state regions to facilitate planning and conduct of incident management? If yes, please provide a map showing the regional structure.
3. Does each intra-state region have an incident management plan? If yes, please indicate a web-site address or other reference to a typical plan.
4. Summarize the results of activities during FY2002 to achieve CDC Critical Benchmarks 3, 5, 6, and 12 and HRSA Critical Benchmark 3; and describe how these results relate to the statewide and regional incident management systems.

In the text box below, provide the information requested in items 1-4 above. Not to exceed 5 pages.

Part 1: Describe the roles and responsibilities of public health departments and the hospital community (including their supporting health care systems) related to incident management at the state and regional levels – including inter-state as well as intra-state regions, as appropriate.

The Massachusetts Comprehensive Emergency Management Plan (CEMP) establishes a framework that effectively and comprehensively integrates the emergency response and recovery actions of all levels of government. The CEMP incorporates an assigned-function concept that ensures state agencies are prepared and capable of cohesively providing resources and services for 16 emergency support functions. The

Department of Public Health (MDPH) is responsible for implementing the Massachusetts Emergency Support Function (MAESF)-8 of the CEMP. As the primary agency for this function during a state or public health emergency, MDPH utilizes state resources, the hospital community and health care systems to coordinate the following functions:

- Assessment of health and medical needs;
- Disease control and epidemiology;
- Health and medical care personnel;
- Health and medical equipment and supplies;
- Patient evacuation;
- Hospital care coordination;
- Food and drug safety;
- Emergency responder health and safety
- Radiological, chemical and biological hazards;
- Public health information release;
- Vector control and monitoring;
- Potability of water, processing of wastewater and solid waste disposal;
- Victim identification and mortuary services;
- Medical command and control; and
- Emergency medical services

Under MAESF-8, local health departments departments, the hospital community and their supporting health care systems serve as supporting agencies to provide local and regional services, surge capacity beds, and identified necessary resources.

MDPH has divided the Commonwealth into seven emergency preparedness regions for planning, coordinating and responding to events. The hospitals, public health department and support health care systems within each region meet on a regular basis to plan and coordinate emergency preparedness.

1. Does your state (city) currently have an incident management system? If yes, please indicate a web-site address or other reference to a descriptive document and answer the following questions about the system.

Massachusetts implements the CEMP by utilizing the nationally recognized Incident Command System (ICS). The CEMP outlines emergency management, response and recovery functions, while the ICS designates the command structure under which these functions will be performed.

ICS designates one Incident Commander who oversees four primary sections: Operations, Planning, Logistics and Finance/Administration. These sections are then subdivided into specific roles and responsibilities. In Massachusetts, these roles and responsibilities are assigned to 16 MAESFs. MAESF-8 is part of the Logistics role. The CEMP is readily available at http://www.mass.gov/agency/documents/mema/1102-StateCEMPlan.doc.

a. What government agencies participate in the system?
See Cross-Cutting Attachment 1 (MA ESF) that outlines each of the primary agencies under the MAESF structure

b. What other entities, public and private, participate in the system?
See Cross-Cutting Attachment 1 (MA-ESF) that outlines each of the primary agencies under the MAESF structure.

c. Which agency has responsibility for overall planning, directing, and coordinating jurisdiction-wide response operations?
The Massachusetts Emergency Management Agency (MEMA), under the ICS, has the overall responsibility for planning, directing and coordinating emergency response operations. MEMA may delegate a lead role in

implementing response operations, as appropriate. During biological and other public health emergencies, MEMA will designate MAESF-8 and MDPH as a lead role in implementing response operations.

d. For what classes of incidents does the public health department have lead responsibility for planning, directing, and coordinating jurisdiction-wide response operations?
Upon activation of MAESF-8 by MEMA, MDPH has the lead responsibility for planning, coordinating and directing jurisdiction-wide response operations for emergencies involving incidents of bioterrorism, weapons of mass destruction with respect to biological or public health consequences, infectious disease outbreaks, mass casualty incidents, and natural disasters.

2. Has your state government defined intra-state regions to facilitate planning and conduct of incident management? If yes, please provide a map showing the regional structure.

MEMA has defined four emergency management regions for the purpose of coordinating emergency management response for all disasters. Within the geographical confines of these four MEMA regions, MDPH has defined seven public health emergency preparedness regions. The attached maps, Cross-Cutting Attachment 2 (MEMA) and Cross-Cutting Attachment 3 (Hospitals), describe these two operational systems.

3. Does each intra-state region have an incident management plan? If yes, please indicate a web-site address or other reference to a typical plan.

Each region operates under the CEMP, although every community in the Commonwealth has individual emergency management plans. Community emergency management plans are, in effect, appendices to the CEMP that detail various resources and services.

The public health emergency preparedness regions continue to work together to identify regional resources and services available for deployment under a declared state or public health emergency.

4. Summarize the <u>results of activities during the FY2002 budget period</u> to achieve CDC Critical Benchmarks 3, 5, 6, and 12 and HRSA Critical Benchmark 3; and describe how these results relate to the statewide and regional incident management systems.
CDC Benchmark 3: Maintain a system for 24/7 notification or activation of the PH emergency response system.

MEMA maintains a 24/7-notification system for all emergencies, including public health emergencies. Additionally, the Massachusetts Alert Network is completing a beta test with about 500 users, but will be expanded within the next several weeks to include thousands of additional users. The Alert Network is capable of notifying its members of an emergency through various communication tools (pagers, email, text messaging, landline and cellular phones). The MDPH Bureaus of Communicable Disease Control and Laboratory Sciences maintain a live person 24/7 on-call system that can activate critical staff within 1 hour to duty at the State Laboratory Institute or other designated location.

CDC Benchmark 5: Review and comment on documents regarding the National Incident Management Systems (NIMS), develop and maintain a description of the roles and responsibilities of PH departments, hospital and other health care entities in the statewide incident management system, and where applicable, in regional incident management systems.

In reviewing information on NIMS, Massachusetts understands that it is likely that NIMS will reflect the nationally recognized Incident Command System (ICS) methodology. Massachusetts's emergency management system currently utilizes ICS to implement the CEMP. Therefore, once NIMS has formally designated ICS as its principle methodology, Massachusetts will already be compliant. MDPH's Bureaus of Health Quality

Management, Communicable Disease Control and Laboratory Sciences are the primary agencies responsible for implementing MAESF-8, a coordinating effort under the Logistics Section of ICS. Local health departments departments, hospitals and health care entities are supporting agencies that ensure resources and service required under MAESF-8 are provided during an emergency. The Alert Network's role-based directory reflects the roles as defined by NIMS.

To further the goals of ICS within the health care and EMS communities, MDPH has worked with the state Department of Fire Services (DFS) Training Academy to develop and implement the nationally recognized Hospital Emergency Incident Command System (HEICS) training program for all Massachusetts hospitals. Using FY2002 and advance FY2003 HRSA funds, this program will be offered at no charge to all acute care hospitals beginning this month. A total of 25 one-day sessions are planned to train 600 hospital personnel over the next 12 months. Additional offerings of this program will be made available as part of the HRSA 2003 funding process.

Two-to-three day modular training programs on personal protective equipment (PPE) and decontamination procedures for hospital and EMS personnel have also been developed by the DFS utilizing HRSA funds. These programs contain the basic elements if ICS for response to chemical, radiological and biological events. These programs are provided at no cost to hospitals or EMS services. A total of 75 sessions will be offered to train 5,000 hospital and EMS personnel over the next 12 months. Additional offerings of this program will be made available as part of the HRSA 2003 funding process.

CDC Benchmark 6: Develop or maintain, as appropriate, an SNS preparedness program within the recipient organization's overall terrorism preparedness component, including full-time personnel, that is dedicated to effective management and use of the SNS statewide. This SNS preparedness program should give priority to providing funding, human and other resources, and technical support to local and regional governments expected to respond should the SNS deploy there.

An SNS Workgroup, comprised of representatives from state and local health departments, hospitals, public safety, emergency management and others, was established in August 2002 to advise the Advisory Committees and MDPH on implementing SNS-related aspects of the Bioterrorism Preparedness and Response Program. During FY2002, a SNS manager, statewide coordinator and MMRS/regional coordinator (contracted to Boston) were appointed. The Boston and two additional MMRS/Regional SNS Coordinators (to be added in FY2003) will work directly with the MMRS cities, other cities and towns, hospitals and other health care facilities in the Commonwealth to facilitate development of regional, local and hospital SNS asset management plans, and to support and collaborate on the design, development and implementation of orientation, training and exercise programs.

SNS preparedness functions are part of MEMA emergency support functions. Mobilization of resources will be conducted in accordance with the Massachusetts CEMP. The SNS Workgroup will develop the Statewide SNS Asset Management Plan that will be fully integrated with the CEMP as well as model SNS asset management plans and guidance materials for regions, cities and towns based on the statewide plan.

CDC Benchmark 12: Complete and implement an integrated response plan that directs how public health, hospital-based, food testing, veterinary, and environmental test laboratories will respond to a bio-terrorism incident, to include: (a) roles and responsibilities; (b) inter- and intra-jurisdictional surge capacity; (c) how the plan integrates with other department-wide emergency response efforts; (d) protocols for safe transport of specimens by air and ground; and (e) how lab results will be reported and shared with local health departments and law enforcement agencies, ideally through electronic means.

MDPH continues to strengthen infrastructure and develop an integrated plan that directs how testing laboratories will respond to a bio-terrorism incident.

(a) The State Laboratory Institute (SLI) has the primary responsibility through the national Laboratory Response Network (LRN) for coordinating testing roles, responsibilities and data/information flow between and among the federal, state and local laboratories for incidents in Massachusetts (see Cross-Cutting Attachment 4 – Laboratory diagram).

(b) SLI is responsible for all intra-jurisdictional testing, and may coordinate and perform inter-jurisdictional testing as designated through the LRN. SLI has capability to test clinical, environmental and food specimens. In addition, SLI has formed, or is in the process of forming, formal partnerships with other laboratories for surge capacity and supplementing capabilities such as electron microscopy for variola virus. Current partnerships include all hospital-based and major clinical laboratories, Harvard School of Public Health laboratories, Tufts University School of Veterinary Medicine, University of Massachusetts at Dartmouth and the Massachusetts Department of Environmental Protection Laboratories.

(c) The SLI links its testing plan to other department-wide emergency response efforts through collaboration with other programs within MDPH and through the MAESF-8 plan.

(d) SLI frequently offers a one-day packaging and shipping course at various locations throughout the state. This course provides IATA certification to attendees who successfully pass the course exam. Attendees at this training have included hospital microbiologists, National Guard soldiers, U.P.S. employees and other appropriate professionals.

(e) Laboratory results are reported according to protocol and are sent by electronic means when possible. SLI, in conjunction with the Bureau of Communicable Disease Control, is developing a web-based electronic reporting system for local health departments, clinical laboratories, hospitals and other appropriate recipients of data. This system is in the design phase and will meet all federal standards such as HL-7 messaging and security and will be fully compliant with HIPAA.

HRSA Critical Benchmark #3: Develop a mutual aid plan for upgrading and deploying EMS units in jurisdictions they do not normally cover, in response to a mass casualty incident due to terrorism. This plan must ensure the capability of providing EMS coverage for at least 500 adult and pediatric patients per 1,000,000 population per day.

The state Mass Casualty Incident (MCI) Committee is developing a plan for regional, multi-regional, or statewide deployment of EMS resources in response to any MCI event. The Committee is seeking to optimize available resources by establishing EMS strike teams/task forces that would be deployable through a unified command system.

The Committee is developing an EMS mutual aid plan to ensure capacity for the transport of 500 patients/1 million population/day. The Committee will examine key components of mutual aid response, and existing models and mechanisms, to determine: authority to deploy EMS resources; how best to coordinate of fire-based and private EMS resources; effective means to dispatch resources to the scene; and how to coordinate with state and local unified command systems. The Committee will continue to engage neighboring states and include representatives from rural areas and volunteer services who have been active in EMS 2000 and EMS Regional Councils, EMS-for-Children, MMRS communities, and DMAT's in the planning process.

The Committee is also reviewing current real-time hospital diversion data and hospital trauma capability tracking systems, as they are integral in implementing any EMS mutual aid plan. The current system is updated several times each day, utilizing only a tri-level, fixed data set statuses (open, limited diversion, total diversion). The Committee will develop a system with more frequent (i.e., real-time) status updates, finer levels of capacity tracking, and the ability to add variables for tracking "on the fly." Ideally, the hospital diversion system would be

one of the integrated functions of the proposed MEMA/HRSA Asset Management System.

Part 2: Carry out the following activity during the upcoming budget period:

Review and comment on DHHS-furnished documents regarding NIMS as it undergoes development.

MDPH, in conjunction with MEMA, DFS and other relevant public safety agencies, will review and provide comments on all DHHS-furnished documents regarding NIMS. The MDPH Emergency Preparedness Coordinator, the MEMA-DPH Liaison, the HRSA Medical Director, Hospital Preparedness Coordinator and state EMS Director will serve as the core group responsible for reviewing and disseminating such the materials within MDPH.

Develop and keep up to date a description of the roles and responsibilities of public health departments, hospitals, and supporting health care systems in the statewide incident management system and, where applicable, in region incident management systems.

The roles and responsibilities of the MDPH, hospitals and supporting health care systems are covered within the MA ESF-8 protocol and the state CEMP. An updated ESF-8 is under revision and will be competed by September 2003. Now that Massachusetts has adopted a regional planning and organizational structure for hospitals and local health departments, regional incident management plans will be developed and added to the ESF-8 protocols by the March 2004.

As referenced above, the costs associated for the HEICS and other related incident command components for PPE and Decontamination training are incorporated in the HRSA budget justification and are referenced in Priority Planning Areas 2 and 5 which reference Hospital and EMS Preparedness.

B. CROSS-CUTTING BENCHMARK #2: JOINT ADVISORY COMMITTEE FOR CDC AND HRSA COOPERATIVE AGREEMENTS:

Establish and operate an Advisory Committee to assist the jurisdiction's senior public health official in overseeing both the CDC and HRSA Cooperative Agreements

Describe the activities of the advisory committees for the CDC and HRSA cooperative agreements during the current budget period (CDC Critical Benchmark #2 and HRSA Critical Benchmark #2). Summarize the major accomplishments. Identify the areas, if any, where the committees' results fell short of expectations and discuss the obstacles encountered and potential ways to overcome them in the future.

In the text box below, provide the information requested above. – Not to exceed 2 pages.

During the FY2002 budget period, the Statewide Bioterrorism Preparedness and Response Program Advisory Committee met 7 times - in March, April, May, June, July, September (via teleconference) and October 2002. The Hospital Preparedness Planning Committee met 5 times - in March, April, May, July, and September 2002. The two advisory committees met jointly 3 times - December 2002, March 2003 and June 2003.

The Advisory Committees have established 11 workgroups: Decontamination/Isolation/PPE, National Pharmaceutical Stockpile, Hospital Surge Capacity, Laboratory, Smallpox Vaccine (and the sub-workgroups:

Smallpox Vaccine Supply, Distribution and Dispensing, Mass Vaccination Site Identification, Public Information, Isolation Facilities for Smallpox Cases, Case Surveillance, Contact Vaccination and Transmission Control), Needs Assessment, Education and Training, Epidemiology and Surveillance, Alert Network, Risk Communication, and Mental Health and Substance Abuse.

These workgroups include representation from members of the advisory committees as well as a number of other entities and have met on a bimonthly basis.

In June 2002, a website (www.state.ma.us/MDPH/bioterrorism/advisorygrps/) was developed to facilitate communication regarding workgroup and advisory committee activity. Email listservs were also established and are widely used to communicate with all committee and workgroup members.

Activities and accomplishments:

June 2002 (CDC Advisory Committee)

- Discussed the 3 new priorities named in the June 6 award letter and how to accomplish them
- Presented proposed regional system for preparedness and response
- Formed workgroups

July 2002 (CDC Advisory Committee)

- DPH invited to join Statewide Anti-Terrorism United Response Network
- MMRS cities ensured coordination with Advisory Committee
- Workgroups began meeting and drafting mission statements

July 2002 (HRSA Advisory Committee)

- June 6th award letter reviewed and the three new priorities
- Hiring of HRSA staff
- MMRS updates were given to ensure linkages due to timeline differences for deliverables
- Emergency Response Regional Planning and how to divide up the regions as well as SATURN (statewide anti-terrorism unified response network)
- MHA scope of work was reviewed as well as the status of the hospital needs assessment and the need for future needs assessments to be conducted as not all of the questions may have been asked on the first survey
- Ambulance diversion
- Credentialing and reciprocity of staff was discussed

September 2002 (HRSA Advisory Committee)

- CDC NPS staff, here to perform the NPS site review, gave an NPS update
- Personnel update (new hires reviewed)
- Updates on MMRS meeting in Seattle and 50 state meeting
- MHA and MDPH have a signed contract in place
- MA State bioterrorism website was reviewed
- MMRS update
- MHA presented the preliminary hospital needs assessment survey results
- Smallpox workgroup presented draft recommendations
- Reminder about the new website and that it can be accessed for the calendar for meetings, exercises and drills as well as meeting minutes,

September 2002 (CDC Advisory Committee)

- MDPH released funds to the Boston Public Health Commission
- Strategic National Stockpile Program Site Review conducted by CDC
- Workgroups gave updates

October 2002 (CDC Advisory Committee)
- MDPH drafted CDC progress report due November 1
- MA Alert Network pilot launched
- Smallpox Workgroup made recommendations for hospital receiving capabilities
- Needs Assessment Workgroup drafted RFQ for vendor

December 2002 (Joint Committee Meeting)
- Implementation of Public Health Emergency Planning Council and Advisory Committee
- Smallpox Workgroup discussed pre-event plans, including vaccination logistics and recommendations for regional response teams
- Surge Capacity Workgroup worked with New England Public Health Collaborative to analyze using hotels for emergency purposes
- Planning began for statewide healthcare worker credentialing program

March 2003 (Joint Committee Meeting)
- Published Recommendations for Using Smallpox Vaccine in a Pre-Event Vaccination Program
- SNS Workgroup identified a primary RSS facility
- MDPH and the Massachusetts Hospital Association sponsored a statewide hospital regional planning session with 100% participation of hospitals

June 2003 (Joint Committee Meeting)
- Update on SARS, smallpox and monkeypox
- Review of Continuation Guidance for CDC and HRSA cooperative agreements
- Updates on Needs Assessment and Strategic National Stockpile
- Discussion of surge capacity regarding psychosomatic implications of an event

The membership of the Advisory Committee should be broadly representative of public and private entities that have a significant role in preparedness for and response to bioterrorism and other public health emergencies. Representatives from the following entities must be included on the unified advisory committee and/or its subcommittees:

State, territorial or municipal health department	Massachusetts Department of Public Health
Local health departments	Amherst Board of Health Boston Public Health Commission Brookline Health Department Cambridge Health Alliance Massachusetts Association of Health Boards Massachusetts Health Officers Association Massachusetts Institute for Local Public Health Massachusetts Public Health Association Springfield Department of Health and Human Services Worcester Department of Public Health and Code Enforcement
State or territorial hospital Association	Massachusetts Department of Public Health
State or territorial mental health agency	Department of Mental Health
Academic Health Centers	Boston University School of Public Health

	Center for Health Professions at Worcester State College Harvard School of Public Health Northeastern University Tufts School of Veterinary Medicine University of Massachusetts Medical School
Other tertiary care centers	Sturdy Memorial Hospital
Community hospitals	Emerson Hospital
Community health centers	Massachusetts League of Community Health Centers
Primary care associations	Aetna, Inc. Fallon Community Health Plan Tufts Health Plan
Clinical professional societies	Academy of Pediatric Physicians Association of Professionals in Infection Control Massachusetts Association of Physician Assistants Massachusetts Association of Public Health Nurses Massachusetts College of Emergency Physicians Massachusetts Infectious Diseases Society Massachusetts Medical Society Massachusetts Nurses Association Massachusetts Organization of Nurse Executives Massachusetts Pharmacists Association Massachusetts Society of Health-System Pharmacists Medical, Academic, and Scientific Community Organization
American Indian or Alaska Native health care facilities	Wampanoag Tribal Health Services
Veterans Administration health care facilities	Francesca Austin, VA Emergency Manager
Military treatment facilities (if applicable)	N/A
State or territorial office of rural health	Office of Rural Health
State, territorial or municipal emergency medical services director or designee	Louise Goyette, Office of Emergency Medical Services
State, territorial or municipal emergency management agency	Massachusetts Emergency Management Agency
Local emergency medical systems	Boston EMS EMS Region I EMS Region II EMS Region III EMS Region IV

	EMS Region V
Poison control centers	Massachusetts Poison Control System
Metropolitan Medical Response Systems	Boston MMRS Springfield MMRS Worcester MMRS
State Maternal-Child Health Advocate	Sally Fogerty, Bureau of Family and Community Health
State Trauma Coordinator	Louise Goyette, Office of Emergency Medical Services
Police departments	Department of State Police Massachusetts Chiefs of Police Association Massachusetts Sheriffs Association
Fire departments	Department of Fire Services Fire Chiefs Association of Massachusetts Professional Firefighters of Massachusetts
Red Cross and other voluntary organizations	American Red Cross Blood Services American Red Cross, Massachusetts Bay Chapter
Consumer representatives	Commonwealth of Massachusetts, Office of Consumer Affairs and Business Regulation Massachusetts Biotechnology Council Retailers Association of Massachusetts, Pharmacy Services
Other	Action Ambulance Service, Inc. Baystate Medical Center Board of Medicine Boston MMRS Children's Hospital Conference of Boston Teaching Hospitals Department of Environmental Protection Department of Food and Agriculture, Bureau of Animal Health Executive Office of Environmental Affairs Holyoke Hospital Home Health Care Association of Massachusetts, Inc. Labor-Management Construction Safety Alliance Lahey Clinic Lemuel Shattuck Hospital Massachusetts Ambulance Association Massachusetts Environmental Health Association Massachusetts Water Resources Authority National Guard Office of the Chief Medical Examiner Springfield MMRS Worcester MMRS United States Postal Service

The Advisory Committee's members collectively have expertise and experience in the following professional disciplines:

- Public health (especially infectious disease epidemiology and clinical laboratory science)
- Medicine (especially emergency medicine, family medicine, internal medicine, pediatrics, critical care, infectious disease, toxicology, radiation medicine and trauma surgery)
- Nursing (especially emergency, critical care, occupational and school health)
- Pharmacy
- Hospital administration
- Hospital engineering
- Laboratory science
- Mental health (care delivery and psychological consequences of terrorism)
- Emergency medical technicians or paramedics
- Information systems and technology
- Public affairs (especially risk communication)

C. CROSS-CUTTING BENCHMARK #3: LABORATORY CONNECTIVITY:

Establish operational relationships among the human clinical, food, veterinary, and environmental analytical laboratories within the jurisdiction (and other jurisdictions as appropriate) with respect to preparedness for and response to bioterrorism and other public health emergencies.

Describe the progress made during the current budget periods of the CDC and HRSA cooperative agreements in establishing linkages between public health departments and hospital-based clinical laboratories (CDC Critical Benchmark #10).

In the text box below, provide the information requested above. – Not to exceed 2 pages.

C. CROSS-CUTTING BENCHMARK #3: LABORATORY CONNECTIVITY (CDC CRITICAL BENCHMARK # 10, HRSA CRITICAL BENCHMARK 4-1)

The State Laboratory Institute (SLI) has recruited 80 identified sentinel laboratories throughout the state to participate in training courses offered free of charge and has distributed reference material to these laboratories. The "Agents of Bioterrorism: Sentinel Laboratory Training" course currently provides a lecture and wet lab overview of the sentinel laboratories' role in the presumptive identification of primary agents of bioterrorism (BT). At least one microbiologist from each of 66 hospital-based laboratories has attended and been issued a certificate with a total of 121 microbiologists trained.

The "Packaging and Shipping Diagnostic Specimens and Infectious Substances" course curricula provides a lecture and hands on overview of IATA, DOT, CDC, USPS and specific carrier regulations applicable to packaging and shipping both diagnostic and infectious agents. At this time, 36 Massachusetts sentinel laboratories have had at least one microbiologist attend with a total of 101 microbiologists trained. International Airline Transport Association (IATA) certification is granted to those attendees who pass the course exam.

SLI contracted provision of a one-day course in the Safe Use of Biological Safety Cabinets for interested members of the clinical laboratory community. This course was offered free-of-charge to all sentinel labs and was conducted by staff from The Eagleson Institute, a respected national provider of safety training. Sixteen clinical laboratories were able to send representatives.

SLI has contracted with Acadient, Inc., a premier on-line learning company, and begun to develop an interactive web-based learning tool, "Proficiency Exercise for Sentinel Laboratories: Agents of Bioterrorism Level-A Laboratory Training", which will be made available to all sentinel laboratories.

SLI continues to update the online Manual of Tests and Services to provide sentinel laboratories with current information on test profiles, test kits, critical contact information and proper sample and shipping requirements. Copies of this manual have been provided to all clinical laboratories and hospital based infectious disease practitioners in the state. The electronic version is available at url: http://www.state.ma.us/dph/bls/manual/blsmts.htm

SLI has developed a "Critical Bioterrorism Agents Reference Chart" that depicts morphological and phenotypic characteristics and testing algorithms for BT organisms. This poster has been distributed to each sentinel laboratory Microbiology Supervisor and each hospital Chief of Infectious Disease in the State.

SLI has recently completed the conceptual design of the Electronic Laboratory Reporting and Communication (ELR) Component in conjunction with the Bureau of Communicable Disease Control. The ELR component will allow SLI to provide secure client transactions through web-based communications with clients, including sentinel laboratories in the state. The ELR component is an extranet application that will extend the functionality of the recently developed State Laboratory Information System (SLIS).

1. **Carry out the following activity during the upcoming budget period**
    a. **Compile a jurisdiction wide or region wide inventory of all the analytical laboratories that could play an important role in helping public health officials respond to bioterrorism or other public health emergencies. Include laboratories of academic health centers that have a formal affiliation with public health departments of hospitals.**
    b. **Determine what cooperative arrangements currently exist between and among these laboratories and assess needs for improvements.**
    c. **Consider the results of this needs assessment when planning and implementing**
        i. **(a) enhancements to public health department laboratories, hospital based laboratories, and food laboratories affiliated with state or local government – including collaborating academic health centers and**
        ii. **(b) new or improved cooperative arrangements between and among laboratories listed in the jurisdiction wide inventory.**

Goal 1: Develop and implement strategic plans for continual improvements in clinical laboratory capacity and capability.
Activities:

- Conduct a comprehensive survey of sentinel clinical laboratories to establish a baseline inventory of resources that will guide development
- Map affiliations and cooperative agreements among hospital laboratories and between hospital laboratories and academic health centers to enhance our mutual ability to respond to perceived or actual incidences of biologic and chemical terrorism, improve communication and build surge capacity
- Complete letters of agreement (LOA) with the 80 clinical laboratories and provide resources to assure they can participate effectively as sentinel laboratories. The LOA will explain the requirements for participation in the LRN as a sentinel laboratory and will be incorporated as a sub-agreement within the master MDPH Hospital MOU that is used to allocate all funds directly to Massachusetts acute care hospitals.
- Award each sentinel hospital that establishes a satisfactory plan to meet all requirements with a grant of $2,000-6,000 from the 2003 HRSA Cooperative Agreement to be used by the laboratory at the facility to meet and sustain expectations of the agreement
- Identify 3 hospital-based clinical laboratories located strategically in the state to provide surge testing services during events. The Department proposes to strengthen surge capacity for clinical specimens through the 2003 HRSA Cooperative Agreement. Funding will be provided for technical assistance and training,

equipment and safety upgrades as required.

Goal 2: Continue to enhance the SLI electronic communications capabilities to provide secure, timely test reporting and surveillance information to LRN partners, other private entities, sentinel clinical laboratories and government agencies to support public health disease reporting and surveillance activities.
Activities:

- Select and interface engine to support HL7, Version 2.4 and earlier, ebXML, message queues with the ability to translate and manipulate LOINC and SNOMED codes. The web interface will use standard web security features of the web server platform, which will be selected during the detailed design phase, and include strong authentication connectivity. These include HTTP User Authentication and session encryption using HTTPS and secure socket layer (SSL).
- Determine the readiness of select hospitals and laboratories to report results electronically including an evaluation of their HL7 interface capabilities
- Ensure that system participants have Internet Connectivity and that the connection is a minimum of 56Kbps or ideally 384 Kbps or greater and can support 128 bit encryption
- Create functional specifications that include the defined business logic, data requirements and information processing

Goal 3: Complete a plan for assessing the need for surge capacity for clinical and food testing laboratories.
Activities:

- Establish a monthly meeting schedule for the Statewide Laboratory Advisory Workgroup
- Develop a plan with a task force of SLI staff (Ralph Timperi (lead) Mariah Grazioplene, Peter Belanger, Garry Greer and Doris DeGraves from the BHQM Laboratory Licensing Program), academic (faculty member from UMass-Dartmouth Medical Technology Department). Evaluate SLI capabilities and capacities in relation to national priorities and local and regional vulnerability assessments, and testing capabilities for food, water, veterinary, and environmental samples as well as clinical samples
- Use the statewide laboratory evaluation survey to identify for up to three laboratories (average $50,000 each) to provide surge capacity testing and/or additional capabilities for testing food, water, veterinary and environmental samples. Funding will be awarded based on competitive proposals from laboratories that meet requirements for LRN confirmatory laboratories as determined in inspection by SLI, and approval of State Laboratory Director, and address gaps in critical capacities identified in the SLI evaluation
- Implement initiatives to supplement existing food testing capabilities at SLI
- SLI is currently working with the Harvard School of Public Health to set up an agreement for use of an electron microscope on an as needed basis (see Critical Capacity 9, Recipient Activity 8). SLI will contact additional university laboratories in the State to explore surge capacity options
- Investigate the interest and ability of the U.S. Army Soldier and Biological Chemical Command food laboratory in Massachusetts to provide sentinel testing and/or surge capacity for food testing

D. CROSS-CUTTING BENCHMARK #4: LABORATORY DATA STANDARD:

Adopt the Logical Observation Identifiers Names and Codes (LOINC), where applicable, as the standard codes for electronic exchange of laboratory results and associated clinical observations between and among clinical laboratories of public health departments, hospitals, and other entities, including academic health centers, that have a role in responding to bioterrorism and other public health emergencies.

Describe the experiences of the recipient's public health department laboratory – and those of local public health department laboratories, as applicable – during the current budget period in promoting

effective and efficient electronic exchange of clinical laboratory results and associated clinical observations.

In the text box below, provide the information requested above. – Not to exceed 2 pages.

SLI is developing a laboratory information system (SLIS) that includes an electronic laboratory reporting and communication component (ELR). SLIS will replace existing multiple lab-specific stand alone FoxPro and Access databases, and add new functionality to support the SLI mission of effective disease control and prevention, outbreak investigation, emergency preparedness, terrorism response, and meet federal regulatory requirements under the Health Insurance Portability and Accountability Act (HIPAA).

SLIS includes a common data repository (CDR) that will be accessed by all laboratories within the SLI. The CDR is based on the federal logical data model (PHIN) and utilizes common database technology (SQL Server) using Windows NT and supports ODBC connectivity.

The SLIS ELR Component is an extranet application that will extend the functionality of the recently developed SLIS, to provide secure, web based real time communication between clinical laboratories and the MDPH Bureaus of Laboratory Sciences and Communicable Disease Control. ELR will enable electronic test ordering by clinical laboratories, test result quesries 24/7 by health care providers and electronic test reporting. In addition, ELR will enable electronic transmission of data for reportable diseases by medical providers, public health authorities, and other environmental and investigatory agencies to the state health department. The ELR Component will utlilize HL7 messaging, LOINC and SNOMED codes and includes an Integrated Data Repository (IDR). The IDR will allow SLI to associate incoming data with previously reported data, perform statistical analysis and include geographical information system capabilities. The IDR will be developed according to standard database technology and be based on the PHIN –compatible Logical Data Model.

SLI has recently completed the conceptual design of the ELR Component. The conceptual design includes the use of a commercial interface engine as a solution for the transmission and reception of HL7 messages and data. The interface engine will be selected to support HL7, Version 2.4 and earlier, ebXML, message queues and the ability to translate and manipulate LOINC and SNOMED codes. Although HL7 Version 3.0 includes ebXML formats and additional security features, it is a draft standard and commercial support will develop over the next couple of years. The basic HL7 data transactions in the ELR Component are:

- Receipt of registration and test requests from hospital sending specimens by batch to SLI
- Transmission of test results to hospitals and other public health partners using LOINC and SNOMED codes
- Transmission of registration and test requests to reference laboratory information systems
- Receipt of test results from reference laboratory information systems

The web interface will use standard web security features of the web server platform, which will be selected during the detailed design and include strong authentication connectivity. This includes HTTP User Authentication and session encryption using HTTPS and secure socket layer (SSL). The infrastructure established by the Alert Network will be utilized where possible.

SLI will shortly begin the detailed design phase of the ELR Component. As part of the next steps of this phase SLI will meet with 5 –7 pilot sites, which will include hospital laboratories and other public health partners to determine the readiness to report and receive laboratory results electronically. At this time, SLI will define the detailed requirements of the ELR Component, which will include the ability to exchange laboratory data using LOINC and SNOMED codes. This will include an assessment of the mapping schemes that will be needed between SLI and each sites institutional specific laboratory test codes or test names in their system's term dictionary to LOINC codes. The ability of participating pilot sites to encode their local tests correctly into the LOINC identifiers is necessary to translate and process messages properly. This process will incorporate use of the Proposed PHIN

Notifiable Condition Mapping Tables, including the Proposed PHIN Notifiable Condition Mapping Tables Maintenance Process. Other tasks that will be conducted during this phase include:

1. Define and document high-level system requirements including:
   - The mechanics of the data transfer, including the use of HL7 messages and other acceptable reporting formats
   - Review work and communication flows
   - The data elements required and possible in a data transfer
   - The interface engine (information broker) that will migrate data in a non-HL7 compliant format into an HL7 compliant format
   - Security requirements including, access control, encryption, audit trail capabilities, entity authentication and event reporting
2. Identify and evaluate possible commercial off the shelf (COTS) solutions.
3. Define optimum technology environment and associated messaging capabilities and capacity, including HL7 messaging, LOINC coding, communication and software standards, associated hardware and network needs, etc.
4. Define integrated data repository (IDR) to serve as an operational data store to receive HL7 messages.
5. Define technical architecture including integrity controls and message authentication. Identify the major components of the hardware and software architecture that will be required to support the development and implementation of ELR messaging component, including network and any telecommunication requirements.

All design and development will be in accordance with the IT Functions and Specifications outlined in Appendix 4 of the CDC Cooperative Agreement.

E. CROSS-CUTTING BENCHMARK #5: JOINTLY FUNDED HEALTH DEPARTMENT / HOSPITAL ACTIVITIES:

Develop and maintain a database displaying activities funded jointly by the CDC and HRSA cooperative agreements and, as applicable, other sources.

List the preparedness initiatives during the current budget period that are receiving joint funding from the CDC and HRSA cooperative agreements. Where funding from one or more other sources is involved as well, identify the source(s).

In the text box below, provide the information requested above. – Not to exceed 2 pages.

List the preparedness initiatives during the current budget period that are receiving joint funding from the CDC and HRSA cooperative agreements. Where funding from one or more other sources is involved as well, identify the source(s).

- A grid has been developed that summarizes the activities jointly funded in FFY 02. This grid is attached as Cross-Cutting Attachment 5 (FFY 02 Grid). Activities that are being funded using the HRSA 20% advance are included on this grid, since the initiatives are restricted to the enhancement of previously approved FFY 02 activities.
- The major jointly funded FFY 02 activities fall within the areas of Program Direction, Advisory Committees, Workgroups (per HRSA priority area and CDC focus area), IT Interoperability/Communications, Risk Communication, and Education and Training.

- In addition to the HRSA and CDC funding sources, MDPH has identified on the attached grid relevant preparedness and funding and activities that arise from the following "Other" sources:
    1. Department of Homeland Security (FEMA and DOJ)
    2. MMRSs
    3. CDC Public Health Preparedness Centers
    4. CDC Academic Preparedness Centers (Harvard Center for Public Health Preparedness, Harvard University)
    5. CDC Public Health Training Centers (NE Alliance for Public Health Workforce Development, Boston University)

2. Carry out the following activity during the upcoming budget period.

Maintain and extend as appropriate the database developed for the application in a form that can be included readily in progress reports or provided in response to special requests from the project officer.

- MDPH has developed a second grid (Cross-Cutting Attachment 6 - FFY 03 Grid) that will be used to complete the FFY 2003 database for the HRSA and three CDC cooperative agreements. This database will track activities funded by HRSA Priority Area, Critical Benchmark, CDC Focus Area, Critical Capacity and Benchmark and source of funding (HRSA, CDC BT, Smallpox or SNS) for each initiative to be undertaken. Due to the difficulties and expense of "joint" funding individual initiatives and personnel from separate accounts, activities in most cases are assigned administratively to one program or the other but these individual activities are appropriately distributed between the two agreements so that both contribute to the accomplishment of the goals.
- The major jointly funded activities proposed for FFY 03 include Program Administration and Planning (smallpox operations and logistics), Surge Capacity (adults and pediatric), Epidemiology and Surveillance (hospital volume, syndromic surveillance, etc), Mental Health and Psychosocial Activities (including special populations), Risk Communication (including special populations), Laboratory Connectivity and Data Standard, IT Interoperatiblity/ Communications, EMS, SNS, Smallpox Vaccination, Public Health/Public Safety inter-agency collaborations, Education and Training and Exercises/Drills.
- In addition to the HRSA and the three CDC funding sources, MDPH has identified on the attached grids relevant preparedness and funding and activities that arise from the following "Other" sources:
    1. Department of Homeland Security (FEMA and DOJ)
    2. MMRSs
    3. HRSA Medical Reserve Corps
    4. HRSA Poison Control Centers (MA/RI)
    5. HRSA Training and Curriculum Development
    6. CDC Public Health Preparedness Centers (Harvard)
    7. CDC Academic Preparedness Centers (Harvard Center for Public Health Preparedness, Harvard University)
    8. CDC Public Health Training Centers (NE Alliance for Public Health Workforce Development, Boston University)
    - MDPH has been actively participating in the regional northeast International Emergency Management Group (IEMG) that includes the New England states and the eastern provinces of Canada. Issues of particular attention have been Surge capacity and Credentialing of personnel.
    - Regional monthly phone calls are being hosted by the HRSA Project Officer with all states from the Northeast (New England, New York and New Jersey). In addition, frequent communication is maintained with the CDC Project Officer t oaddress programmatic and fiscal issues.
- The Massachusetts-Rhode Island Poison Center provides services to both areas and serves as the contact to the national network of Poison Control Centers
- EMS mutual aid agreements extend across state borders in the appropriate geographic areas

The database used to track spending plans, and progress, by Priority Area, Focus Area, Critical Capacity, Critical Benchmark and individual activities is being expanded to permit MDPH to be able to provide the required progress reports as well as respond to special requests from HRSA and CDC Project Officers.

F. OTHER CROSS-CUTTING ACTIVITIES

Responses to each issue below need not be more than a page in length (single-spaced) but they should provide sufficient details about the nature and extent of the coordination and integration activities to permit an assessment of the adequacy of such activities.

Surveillance. Describe how the state health department will integrate disease surveillance systems at the state and local levels, including hospital-based surveillance systems, so that relevant data on disease reporting is rapidly captured and analyzed. Surveillance systems should be developed with a view towards capturing and reporting information in "real-time." Systems should eventually allow for electronic communication between hospitals and public health departments at all levels.

Provide information on coordination and integration – Not to exceed one page.

MDPH proposes to use resources from both the CDC and HRSA cooperative agreements to support surveillance systems at the state and local level. We expect to devote $150,000 from each cooperative agreement, for a total of $300,000 to support the implementation of the programs described below. This money will be distributed to the hospitals of the Commonwealth under the master MDPH Memorandum of Understanding that is being developed. (See HRSA Critical Benchmark 4-2 and CDC (Focus Area B, Critical Capacity 5 and Focus Area E, Critical Capacities 13 and 14) for further details).

1. Active Surveillance

In October 2001, the Division of Epidemiology and Immunization initiated laboratory-based active surveillance of select invasive organisms, including possible BT agents, throughout Massachusetts. A goal of this project is to identify barriers to reporting and to minimize the delay between organism identification and public health notification. Data are forwarded to MDPH on a weekly or monthly basis in addition to existing passive surveillance reporting activities. MDPH epidemiologists have visited 73 out of 79 Massachusetts hospital laboratories to provide education in active surveillance and establish data submission protocols. MDPH plans to visit the remaining 6 hospitals over the next nine months, as well as other hospitals that request or require additional assistance. Currently, electronic data are submitted to MDPH from only 3 laboratories with an additional 23 submitting consistent prospective paper reports.

Since data entry for paper reporting is extremely labor-intensive and disk submission is the first step toward web-based electronic laboratory reporting, MDPH will provide appropriate resources for hospital laboratory information system (LIS) personnel to establish weekly or monthly disk-submission reporting systems. In addition:

- MDPH will provide an annual forum (2nd Annual Active Surveillance Workshop/Conference) for infection control practitioners, microbiology senior staff members and information technologists to learn about surveillance activities and network with colleagues
- IT staff at MDPH will continue to assist laboratory and LIS personnel with disk and electronic submission specifications to enhance data transfer.
- MDPH epidemiologists will analyze and report data to hospital participants through the *Active Surveillance Quarterly* (project newsletter).
- MDPH epidemiologists will be responsible for arranging site visits with laboratories, and describing all aspects of the active surveillance project to appropriate hospital personnel.
- Disk submission specifications will be generated by the Department's IT staff and disseminated to hospital LIS and microbiology personnel.

2. Alert Network

Incorporate hospitals and other sites into the Alert Network and other communication networks.

3. Expansion of Emergency Department Surveillance Program
Efforts are underway to expand Emergency Department surveillance to additional hospitals outside the city of Boston. This program seeks to detect possible BT events by tracking hospital emergency department utilization and flagging any unexpected spikes in volume. Boston has instituted this program in 11 facilities as well as tracking EMS call volume, and funding was provided through the CDC cooperative agreement last year to the Cambridge Department of Public Health to add 5 additional sites. Planning for this year is to add 9 additional hospitals north and south of Boston. Future plans include 100% hospital participation statewide.

Coordination with Indian Tribes. Provide more complete documentation of Indian tribal government participation in state and local preparedness planning. Describe how their participation in planning and implementation efforts will be assured by your plan.

Provide information on coordination and integration – Not to exceed one page.

MDPH has been working very closely with the Wampanoag Tribe of Aquinnah (Gay Head) in the emergency preparedness and response plans being developed in Massachusetts. The Director of Health Services for the Wampanoag Tribe participates in both our Advisory Committee overseeing the work of the CDC and HRSA Cooperative Agreements. In addition, the Director of Health Services and the Conservation Ranger Supervisor from the Wampanoag Tribe are active participants in the Needs Assessment Workgroup which is monitoring the process of our State and Local Bioterrorism Needs Assessment project (See Focus Area A, Critical Capacity # 2).

MDPH and members of the Wampanoag Tribe discussed appropriate ways to facilitate further participation. As a result of these discussions MDPH is working with the Wampanoag to set up a teleconferencing system at the Wampanoag Tribal Council Room. This initiative will allow members of the Wampanoag Tribe, Martha's Vineyard based hospital and community health center personnel, the local board of health, and locally based health care providers to participate in meetings, training sessions, and other broadcasts that take place on mainland Massachusetts without incurring additional travel expenses. MDPH and the Wampanoag are working with a vendor to identify the proper equipment and necessary technological installations (ISDN lines, etc.) for the installation and operation of the system. MDPH is providing technical assistance and monetary resources from the 2003 CDC Cooperative Agreement funds for the installation and operation of this system. (Focus Area A) Funds from the 2004 CDC Cooperative Agreement (Focus Area A) will be utilized to maintain operability of the ISDN lines necessary for the system. We anticipate that this project will be completed by late summer or early fall, 2003.

MDPH is including the Wampanoag Tribe in our Hospital Communications Plan funded through the HRSA Cooperative Agreement. (See HRSA Critical Benchmark 2-10 Interoperability of Information Technology Systems - Communications and Information Technology). We will provide at least two Nextel phones and service that will be included in the same fleet as the other Nextel phones, allowing further communication with other Health Care Facilities in Massachusetts. This will also facilitate further participation with the Massachusetts Alert Network as the Nextels will be enabled to receive text Alerts and messages. (See Focus Area E)

MDPH continues to communicate closely with members of the Wampanoag Tribe and involve them in the plan development process.

Populations with Special Needs. Describe activities that will be implemented to meet the specific needs of special populations that include but not limited to people with disabilities, minority groups, the non-

English speaking, children, and the elderly. Consider all operational and infrastructure issues as well as public information/risk communication strategies. Such activities must be integrated between the public health and the hospital communities.

Provide information on coordination and integration – Not to exceed one page.

Individuals considered part of a special population group are pregnant women, infants and children including those with special health care needs, adults with disabilities and or chronic conditions including elders, individuals who are blind, homeless, refugees, immigrants, asylees, whose primary language is not English and those who are deaf or hard of hearing. The special populations described may have similar access needs: they may also, however, have distinct care needs which, if not met, could mean the difference between life and death. Areas that need to be addressed in particular will be described below. Joint funding for these initiatives is addressed in HRSA Critical Benchmark 2-1 and CDC Focus Area F, Enhanced Capacity 11.

Exposure to biological or chemical weapons: Special populations may experience negative health outcomes not only from exposure to chemical or biological weapons, but also to antidotes and other medications that may be prescribed to combat sequellae of exposure. Dosing of medications may be difficult for pregnant women, infants and children. Individuals with special needs may be taking medications that may also interact negatively with agents or antidotes. Elders, those with compromised immune systems and homeless individuals may have severe reactions to chemical and biological exposures.

Need for heightened monitoring and access to specialty care: Special populations may have unique needs especially related to mental health and pharmaceutical needs. Increased capacity to provide critical and emergency care for populations with special needs may increase in crisis situations. Given the trend for more and more individuals with special needs to live in community rather than institutional settings, it is more important than ever to create mechanisms, which will identify these individuals in the event of disaster or major emergency.

Access to life sustaining supports and medical equipment: Individuals who rely on ventilators or other life sustaining supports are particularly vulnerable to electrical power outages. Ordinary supply mechanisms may be compromised, preventing access to medical supplies, equipment and medications. Family participation in the development of an individualized emergency plan in conjunction with the community systems of care is essential to assuring as safe an environment as possible.

Enhanced cultural and linguistic capacity in public information/risk communication strategies:
Specific needs of refugees, asylees and other new immigrants need to be identified and addressed. There is a need to have translated materials available for diverse non-English speaking populations. There is a need to assure that lists of language translators are current and available. Sign language interpreters for the deaf and hard of hearing are critical supports.

Goal 1: Develop an infrastructure that provides individuals in special populations access to life sustaining services, supports and equipment during a major disaster or emergency.
Activities:

- Identify clinical specialists willing to participate in local disaster teams evaluating and treating pregnant women, infants, children and others with special needs during and after disasters.
- Identify children with significant special health care needs, assist families in developing disaster preparedness plans, obtaining medications, treatments, equipment and supplies.
- Provide technical assistance to State agencies and their contracted vendors who provide care coordination and similar services to individuals with special health care needs, helping each to establish emergency plans for its respective clientele.
- Establish a workgroup of community organizations, which work in the field of disability and or health systems and individuals with special health needs to determine how technology-dependent children and

adults with disabilities will be identified and assisted if necessary.

- Develop local, regional and statewide policies and procedures to assist individuals identified based on workgroups recommendations.
- Expand MDPH mental health workgroup to discuss mental health needs of special populations and in particular children during and after disasters.

Goal 2: Build capacity to establish an effective communication system that provides information about emergency response in culturally effective and linguistically appropriate ways for those whose primary language is not English, individuals who are deaf or hard of hearing, and those individuals with communication or cognitive challenges.

Activities:

- Identify known MDPH programs that provide health care services and public health programs to residents in their own language and in culturally effective ways and expand linkages to include disaster preparedness in their service delivery areas.
- Assess baseline use of the 911 disability indicator program.
- Coordinate with Office of Emergency Medical Services (OEMS) and the enhanced 911 system to increase the utilization by individuals within this population group.
- Provide outreach and education about this critical service to the public through community groups such as Senior Corps, Medical Reserve Corps, and other volunteers.
- Provide outreach and education to health care community by OEMS and the Office on Health and Disability.
- Coordinate with community organizations to develop identification/emergency health information cards to be prepared for immediate access.

Goal 3: Establish capacity to provide emergency and critical care to special populations in austere environments.

Activities:

- Create and facilitate a workgroup, which includes all stakeholders, to conduct assessments regarding capacity to serve special populations and to develop plans to meet goals.
- Work with existing Surge Capacity workgroup to identify potential surge bed capacity and develop protocols for pregnant women, infants born at high risk for developmental delays or with identified special health care needs, children with special health care needs, adults with disabilities or chronic conditions and elders.
- Work with the existing workgroups including but not limited to Surge Capacity, Decontamination/PPE, Risk Communication, Education and Training to assist hospitals and community health centers to establish adequate supplies of pharmaceuticals and protective equipment appropriate for pregnant women and children including those with special health needs.
- Establish special toll-free telephone line (TTY/Voice) providing information about access to emergency health services for special populations.
- Provide technical assistance and information to families who have individuals requiring access to emergency health care services due to their special population status.

Goal 4: Enhance capacity of disease control activities within the Refugee and Immigrant Health Program (RHIP) to assure that the specific needs of refugees, asylees and other new immigrants are identified and addressed in public information/risk communication.

Activities:

- Bilingual, bicultural community outreach educators will serve in bridging roles between public health and newcomer communities.
- Identify media outlets and other strategies with key leaders in newcomer communities to quickly disseminate information to culturally and linguistically isolated communities.
- Develop translated materials for diverse non-English speaking populations.
- Review and annotate list of statewide translation contractors for high quality, accuracy, cultural appropriateness, and clarity of work.

- Work with local health departments to increase understanding of newcomer populations
- Establish collaborations with outreach educators and community agencies serving newcomers to establish working relationships and trust.
- Serve as resources in disease control activities when language, culture and mistrust of government authorities may present barriers.
- Identify and develop responses for immigrant children, with particular focus on those children with histories of trauma or post-traumatic stress disorder and risk for re-traumatization.

Planning for Psychosocial Consequences of Bioterrorism and Other Public Health Emergencies. Describe how the state health department is working with hospitals (and other mental health providers) in planning to meet the psychosocial needs of victims, those at risk, their families, the worried well/sick and emergency responders (including healthcare personnel, public health professionals, EMTs, etc.).

Provide information on coordination and integration – Not to exceed one page.

MDPH is working with hospitals, mental health providers, emergency response and social services entities in planning to meet the peri- and post-event psychosocial needs of victims, those at risk, their families, psychological casualties both with and without medical illness, and emergency responders.

MDPH, through CDC and HRSA funding and in collaboration with the Massachusetts Department of Mental Health (DMH), will provide the following services and implementation activities pursuant to the requirements of this cooperative agreement: Needs Assessment for Mental Health; Regional Surge Capacity for Mental Health (including planning for triage); Education and Training; Risk Communication (including Public Education/Information); and Planning for Psychosocial Consequences of Bioterrorism and Other Public Health Emergencies (including Data Bank of certified mental health professionals/crisis counselors). These services will provide psychosocial interventions and longer-term mental health services to 5,000 adult and pediatric clients and health care workers per 1,000,000 population exposed to a biological, chemical, radiological or explosive terrorist event. The 2001 Census estimate indicates there are approximately 6,379,304 people living in Massachusetts. Therefore, DMH and MDPH will prepare to train enough staff to care for 30,000 to 40,000 mental health clients if a disaster were to occur in Massachusetts.

The MDPH plan for psychosocial consequences of bioterrorism and other public health emergencies is comprised of six areas. They will be explained briefly below. For further detail, please see HRSA Critical Benchmark 2-8 and CDC Focus Area F, Critical Capacity 14.

1. Department of Mental Health Disaster Emergency Services
Through an interagency service agreement (ISA), MDPH will contract with DMH for the provision of psychiatric services needed as part of the mental health emergency management plan. A minimum of one training session in each of the 7 MDPH Emergency Preparedness and Response Regions will be conducted. Crisis Counselor training is an intensive two day training which teaches behavioral health staff, mainly licensed clinicians, to be able to provide crisis counseling services in the event of a disaster and to be placed on a 24/7 call-up roster. DMH plans on training 225 crisis counselors in the next year.

2. Enhancement of DMH Mental Health Response Capacity
MDPH will assist DMH's mental health response capacity by providing for a large-scale acute and a moderate long-term mental health response in the event of a disaster. Mental health staff will work together with public health epidemiologists to provide information to the public in times of elevated terrorist concerns. MDPH and DMH plan on conducting at least one mental health emergency services community educational forum per month. In addition, the agencies will conduct at least one behavioral health and emergency services training session in each emergency preparedness region.

3. MDPH Training and Education - Psychosocial Consequences
MDPH will develop a terrorism psychosocial consequences training and education program that will teach participants to distinguish between the medical and psychiatric manifestations of terrorism and to recognize, assess and respond to the psychological and behavioral manifestations of fear. The program plans on conducting five large regional meetings and 25 specific smaller meetings targeting special groups such as psychiatric nurses. Approximately 1,000 responders will be trained in order to provide psychosocial interventions and longer-term mental health services to 5,000 adult and pediatric clients and health care workers per 1,000,000 population exposed to a biological, chemical, radiological or explosive terrorist incident.

4. MDPH Behavioral Risk Factor Surveillance Survey (BRFSS)
The BRFSS includes a module that asks several questions related to anxiety and fears associated with the threat of terrorism. The results of this survey will be instrumental in determining the extent to which the public is concerned about terrorist threats.

5. MDPH MassSupport Helpline
The continuation of this 24/7 helpline will assist MDPH in providing vital information to the public through the dissemination of pertinent education materials related to mental health issues and the threat of terrorism. Those who particularly benefit from the helpline are those whose alcohol/drug use or mental health issue have been exasperated and whose recovery process has been jeopardized due to disasters or the threat of catastrophic terrorist event.

6. Continuation and Enhancement of MDPH MassSupport Multi-Media Project
A full-time Health Communications Specialist will be hired to maintain and update the existing MassSupport Multi-Media Project. This staff person will work closely with the MDPH Training and Education and Risk Communication workgroups to ensure that mental health and substance abuse issues are addressed in all their activities.

Education and Training. Describe what the health department is doing to train or ensure training of its staff and those in hospitals, major community health care institutions, emergency response agencies, public safety agencies, etc.) to respond in a coordinated manner in the event of a bioterrorist attack or other public health emergency. Describe plans (including joint exercises and drills) that will ensure that each category of personnel in these organizations/agencies knows what their duties are, what is expected of them, and with whom they will be interacting in such an event.

Provide information on coordination and integration – Not to exceed one page.

Over the past grant year, a strong partnership has formed between the CDC Focus Area G Coordinator and the HRSA Cooperative Agreement Medical Director and Hospital Preparedness Coordinator, who have worked in collaboration on many of the items described below. A statewide Education and Training Workgroup was formed in August 2002 and has been meeting on a monthly basis. This workgroup has been assisting the MDPH in the conceptualization, planning and coordination of a needs assessment, and subsequent development and implementation of educational/training activities as they apply to Focus Area G and where there is overlap with other Focus Areas, and with the HRSA Cooperative Agreement. Membership consists of healthcare providers, first responders, academia, public health, and community agencies. Additional detail on Education and Training can be found in HRSA Critical Benchmarks 3 and 5.

A subgroup, dedicated to curriculum development, has been formed out of the workgroup mentioned above. This subgroup began meeting in November 2002. Its mission is to fortify the public health infrastructure through the delivery of appropriate training programs and coordination of educational services across a broad spectrum of public, quasi-public, and private organizations. The subgroup has created a competency-based curriculum

structure using appropriate competency models. It has also produced a number of deliverables. In the months ahead, the subgroup will continue to identify existing resources and trainings, offer tools and guidance to course developers, identify or develop training, and establish evaluation tools and criteria for quality training programs.

MDPH has subscribed to the Public Health Foundation's learning management system called TrainingFinder Real-time Affiliate Integrated Network (TRAIN). The implementation of this system will be a major step towards meeting the Critical Capacity #16 in Focus Area G. The target date for initial roll out is July 2003.

MDPH and the Massachusetts Hospital Association (MHA) worked together to sponsor a full day educational session for acute care hospitals with emergency departments in January 2003. The session was well received and also served to assist in formalizing the hospital regional planning efforts in Massachusetts. Since this session, MDPH, MHA and regional hospital staff have been meeting on a regular basis to continue to work on hospital regional planning activities.

Four MDPH staff attended a "Hospital Leadership and Administrative Decision–Making in Response to WMD Incidents" course offered by the US Public Health Service in Alabama April 7-10, 2003. In follow-up to this session the HRSA staff decided that they will send teams of hospital staff to this training starting this summer.

Priority training topics identified include infectious disease surveillance and reporting, emergency preparedness and incident command. In the last progress year, over 1000 hospital-based physicians and nurses have been trained in bioterrorism agents, emergency response and disaster planning through grand rounds, residency lectures and tabletop exercises by MDPH and its partners. Locally based evaluations have indicated more hands-on training in incident command, and decontamination and use of PPE. Further, exercises have been very valuable in building links between hospital-based health care, public health, first responders and community agencies.

Other hospital and EMS first responder training currently under development includes a 4 hour HEICS/ICS course for hospital staff and EMS. Additionally, a two-day Hospital course and a three-day EMS course on Decontamination and PPE is also nearly complete. These will be rolled out early this summer. Staff proficiency and competency following trainings will be assessed through participation in regional exercises that will occur during this upcoming funding year.

MDPH has a speakers bureau and frequent requests for grand rounds presentations are given by the Division's medical directors. Targeted mailings have been distributed to health care providers and included recently published information regarding diagnosis/treatment of diseases as well as information about reporting to the state. The MDPH website is utilized to post information for health care providers. Seminars and conferences directed at health care providers have been given. Collaborations are being strengthened with professional associations.

A partnership has formed with MDPH and the Harvard Center for Public Health Preparedness (H-CPHP). The first collaborative project is a locally developed and locally led satellite broadcast to be aired on July 8, 2003 on emergency preparedness, incident command and collaboration/partnerships. It will be down linked in 17 sites throughout Massachusetts. The target audience includes healthcare providers and first responders. This is the first of two broadcasts to be held in 2003.

Involvement of Academic Health Centers. Recognizing that academic health centers constitute institutions with expertise and resources in health care delivery (often with emergency response/trauma care capabilities), education/training and research, state and local health departments should capitalize on these assets, if available in their regions, in their preparedness efforts. Describe any activities underway or planned that will involve nearby academic health centers.

Provide information on coordination and integration – Not to exceed one page.

Massachusetts has numerous superb academic health centers and institutions within its borders. We have been collaborating closely with them in carrying out the activities funded under both the HRSA and CDC cooperative agreements. We expect to both continue the collaborations we have in place for this past year, and to enhance our interaction with these institutions in the coming grant year.

Our academic tertiary-care hospitals, affiliated with the four medical schools in the Commonwealth (Harvard, University of Massachusetts, Tufts, and Boston University), are an integral part of our trauma and specialty-care response systems. As such, they have been of immense help in coordinating the surge-capacity aspects of the FY02 HRSA grant. All hospitals have been designated for funding to support this activity; due to their size and system contributions, the funding stream has included substantial monies directed to the academic hospitals. Our workgroups and advisory structure also rely heavily on the numerous experts we are able to access in areas such as emergency medicine, toxicology, trauma, infectious diseases, pediatrics, mental health and other areas of health care. We expect to continue these initiatives in the near future. In the longer term, we plan to collaborate with the academic centers to incorporate disaster and terrorism-response training in their undergraduate and graduate medical education programs, so as to greatly increase the pool of trained personnel we can draw on in the event of a significant patient surge.

The Harvard School of Public Health has been designated and funded as an Academic Center for Public Health Preparedness under the CDC program emanating form the Public Health Practice Office. The Harvard Center for Public Health Preparedness and its partners at the other schools of public health in the Commonwealth are developing and delivering several critical training programs for the healthcare and public health personnel of the state. These projects have included smallpox training for first responders, incident-command training for public health personnel, disaster training for public health students, and rapidly developed satellite broadcast training on SARS and lessons learned for BT response. That broadcast was transmitted nationwide through the CDC-supported network of Centers for Public Health Preparedness. In addition, the staff of the Center, through their international contacts and expertise, was able to provide to the Commonwealth a significant amount of information and analysis based on the Israeli experience; this was of great help especially as we implemented our smallpox and emergency preparedness planning initiatives. Near-term future projects include a series of satellite broadcasts on ICS, emergency planning, and specific threats, and exercise development to test our plans as they mature.

Funding from the cooperative agreements has also been directed to specific projects under the direction of local academic experts. A research team at Children's Hospital in Boston has been developing a syndromic surveillance system optimized for pediatrics. In addition, we are supporting in part the efforts of the Boston Public Health Commission to expand its volume-based surveillance with help form teams representing the academic health centers and public health and community agencies; this is serving as an excellent example of public-private, state-local, and "town-gown" cooperation. We are expecting to direct funding in the near future to support the terrorism-response capabilities of the Massachusetts Poison Control Center, and to support specific pediatric and mental health projects directed toward the goals of these agreements.

Letters of support have been provided to seven Massachusetts applicants for the newly funded HRSA cooperative agreements for Training and Curriculum Development, and three of these applicants meet the definition of Academic Health Centers. MDPH would be pleased to work with any of the recipients of this funding.

Interoperability of IT Systems. Since interoperability of IT systems is the most critical component of electronic communications that will be relied upon heavily during a public health emergency to transmit vital information, data, alerts and advisories, it is paramount that states make every effort to ensure this desired outcome. Describe what measures the state has taken to ensure the connectivity and interoperability, both vertically and horizontally, of its various IT systems with those of local health

departments, hospitals, emergency management agencies, public safety agencies, neighboring states, federal public health officials and others.

Provide information on coordination and integration – Not to exceed one page.

MDPH considers the interoperability of information technology (IT) systems as the most crucial component of electronic communications. MDPH is working together with the public health community in Massachusetts, including: hospitals, Massachusetts Hospital Association (MHA), local health departments, Massachusetts Emergency Management Agency (MEMA), State Police, Department of Fire Services (DFS), emergency medical services (EMS), neighboring states, Department of Mental Health (DMH), the Wampanoag Tribe of Gay Head (Aquinnah), federal public health officials, special need groups and other public health and safety organizations. A needs assessment of the current communications infrastructure, particularly among hospitals, emergency medical services and government agencies and the establishment and implementation of the Alert Network, funded through the CDC cooperative agreement, are addressing communications technology gaps that existed in the past. The initiatives, which cross-cut both the HRSA and CDC cooperative agreements and that are described below, are the basis for a redundant and interoperable statewide communications plan and system that functions both vertically, between state and local activities, and horizontally, between public health and health care activities. Please see Communications and Information Technology – Critical Benchmark #2-10 for more detail on these projects.

1.Alert Network
As a secure application interfaced with a wide range of devises (e.g. pager, fax, phone, email, wireless), the Massachusetts Alert Network (currently in pilot phase with 350 active users), funded through the CDC cooperative agreement and working closely with the HRSA cooperative agreement and the hospitals in Massachusetts, has established the infrastructure necessary for continuous, secure, bi-directional communication and information sharing in support of aspects of bio-terrorism preparedness including, but not limited to, response planning, educational services, disease surveillance, laboratory reporting and epidemiologic investigation.

2. EMS Communications
A State Communications Committee was formed under the guidance of the Massachusetts' Emergency Medical Care Advisory Board (EMCAB). The Committee, through the services of a consultant funded by the CDC cooperative agreement, is evaluating the EMS communications system and will make recommendations on improving the system to meet current and future needs of EMS, the C-Meds and hospitals using this radio system.

3. Hospital Communications Plan
A redundant and interoperable statewide hospital communications plan is being developed under the HRSA cooperative agreement. This is in addition to the work of the EMS Communications Committee. In the initial stage of the interoperable statewide communications plan, two direct-connect cellular/two-way radio phones and one satellite telephone will be provided to each Massachusetts acute care hospital with an emergency department as redundant modes of emergency communication. These phones will be integrated with the Alert Network, therefore cross-cutting both CDC and HRSA activities. MDPH is researching ways of categorizing the phones into various talk-groups to simplify emergency communications, both vertically and horizontally.

4. Statewide Conference Calls
MDPH has and will continue to utilize statewide conference calls, funded by both CDC and HRSA cooperative agreements, when the need arises to brief hospitals, local health departments, EMS and other public health and safety entities at one time on emergency preparedness issues.

5. Government Emergency Telecommunications Service
The Hospital Emergency Preparedness Program intends to explore the Government Emergency Telecommunications Service (GETS), a priority access service provided by the Office of the Manager, National

Communications System. GETS offers callers priority treatment if phone congestion, which may likely occur during a public health emergency. MDPH will research the possibility of obtaining GETS access and incorporating this system into the statewide communications plan and the Alert Network as another type of redundant connectivity.

6. Geographic Information System
MDPH plans to invest in GIS systems and software that will manage existing and newly created databases, display, query and perform analyses of spatial information regarding a public health emergency and the health care services available at the time. The maps generated through GIS systems, and disseminated though the Alert Network, will be valuable to emergency preparedness as a tool that will aid in the immediacy of a collaborative response to public health emergencies in addition to aiding communicable disease surveillance.

Border States. Describe how State and local Health departments sharing an international border with Mexico or Canada foster collaboration and coordinate with border counties and existing border agencies and institutions. The traditional definition of the border is 100 kilometers on either side of the international boundary, but state and local public health agencies in consultation with local public health agencies serving the border areas may choose to define the border in a more functional way. States may use funds to conduct necessary actions in support of binational planning, coordination, program development, and contracting in Mexico or Canada if such actions directly contribute to health security in the United States. In all regional planning efforts, describe any collaborative efforts undertaken by local health departments with hospitals in their communities to develop an integrated regional approach to a mass casualty event.

Provide information on coordination and integration – Not to exceed one page.

Even though Massachusetts does not share an international border, we have ratified the International Emergency Management Compact (IEMAC) and have been involved in planning with the US-Canada International Emergency Management Group (IEMG). Given the geographic proximity of the six New England states and the eastern portion of Canada, those states and the six eastern Canadian provinces have been meeting to plan rapid cross-border logistics and personnel support in the event of a major disaster. An agreement has been completed, the International Emergency Management Memorandum of Understanding (IEMAMOU) which parallels the legal and administrative structure of the intra-US Emergency Management Assistance Compact (EMAC). The IEMG working groups, under a small CDC grant and the leadership of Woodrow Fogg, are now developing methods and protocols for cross-border credentialing, aid requests, and assistance.